

The present invention is directed to a system and method of sending packets between ports on trunked network switches. The method includes providing a first switch having a plurality of communication ports thereupon, and providing a second switch having a plurality of communication ports thereupon. A trunk connection is provided between the first switch and the second switch, with the trunk connection including at least two of the plurality of ports from the first switch being connected to at least two of the plurality of ports of the second switch. A rules table is provided, defining a set of rules identifying which port of the trunk connection will be used for communication. A packet is sent from a first port on the first switch to a second port on the second switch. The packet is received at an ingress submodule of the first switch, and a lookup is performed on one of a source address and a destination address of the packet based upon a lookup table provided in the ingress submodule. It is then identified that the first switch and second switch are connected with the trunk connection by a trunk bit in a lookup entry matched by the destination address. A rules tag bit in the lookup entry is then identified, and the rules tag bit is then compared to a rules table defining which trunk port of the trunk bundle will be used for communication. The rules tag determines which address bits will be used to identify a trunk port for communication. The packet is then forwarded to the destination address on the identified trunk port. The packet is then stored in memory, and then retrieved from memory with an egress unit. The egress unit then forwards the packet to the identified trunk port.